

Non-technical Abstract

Neuroblastoma is a childhood cancer with a very poor outlook for children over one year old. These children usually have cancer cells in many different places in their bodies. Despite very strong cancer-treating drugs, 70 to 80 % of these children will die from their cancer. This protocol proposes to use a different approach to killing tumor cells, namely using the child's own immune system. In previous clinical trials for other cancers and infections, special cells have been made that can recognize cancer cells or infected cells and kill them; these cells are called cytotoxic T-lymphocytes (CTLs). In these previous trial the CTLs were safe for the patient, were detectable in the blood stream, and showed promise for treating the disease. We have been able to make similar CTLs in the laboratory which recognize and kill neuroblastoma cancer cells. We believe CTLs made specifically for patients could be used as an effective treatment in patients with neuroblastoma.